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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,232	04/24/2006	Masahiro Shioi	1152-0321PUS1	4876
2292 7590 04/01/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER RICE, ELISA M				
ART UNIT 2624		PAPER NUMBER		
NOTIFICATION DATE 04/01/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/541,232

Applicant(s)

SHIOI ET AL.

Examiner

ELISA M. RICE

Art Unit

2624

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF 100)
- Paper No(s)/Mail Date 11/26/2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/12/2009 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1 and 7 with regard to the newly added limitations have been considered but are moot in view of the new ground(s) of rejection. Examiner notes that Applicant argues newly added/amended limitations within claim 1, which are rejected by a new grounds of rejection under Oshima (WO97/32437 A1) in view of Swift et al. (US 2002/0122585 A1). See rejection as discussed below.

Applicant's Arguments:

"In the Office Action, the rejection takes the position that Matsuo teaches image placement information in paragraph [0055] and Figure 9, which is information on the placement mode in which the viewpoint images are positioned by rotation of a predetermined angle, and teaches image placement information in Figure i0, which is information as to whether information is in order or reverse order, horizontal or vertical. To the contrary, Matsuo fails to teach integration information that indicates whether

images from different viewpoints have been integrated into a single image or not, an image placement information indicates a placement relationship of the images from the different viewpoints inside of the single integrated image when the images from the different viewpoints are integrated into the single image, the data format includes the integration information and the image placement information, and the image placement information includes information on the placement relationship in which the viewpoint images are positioned by rotation of a predetermined angle, and a placement order information that indicates whether the images are arranged in an order of the viewpoints or in a reverse order of the viewpoints, and therefore cannot remedy the defects of amended claim 1, and claims 3-6 dependent thereon. Likewise, Matsuo fails to teach analyzing means which analyzes an integration information that indicates whether images from different viewpoints have been integrated into a single image or not, and an image placement information that indicates a placement relationship of the images from the different viewpoints inside of the single integrated image, and reproduces the plurality of images using the integration information and the image placement information, and the image placement information includes information on the placement relationship in which the viewpoint images are positioned by rotation of a predetermined angle, and a placement order information that indicates whether the images are arranged in an order of the viewpoints or in a reverse order of the viewpoints and therefore cannot remedy the defects of amended claim 7, and claims 9-12 dependent thereon." (Applicant's Remarks, first and second paragraph of page 10)

Examiner's Reply:

Examiner does not rely on Matsuo to teach the storage of placement mode information or the storage of integration status information. These elements are taught by Oshima in view of Swift as discussed in the new Office Action below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being anticipated by Oshima (WO97/32437 A1) (Oshima EP 1693844 A2 is an equivalent, and will be relied upon and referred to herein as the translation) in view of Swift et al. (US 2002/0122585 A1).

Regarding claim 1, Oshima discloses an image data generating apparatus for generating image data of a predetermined data format from a plurality of images corresponding to a plurality of viewpoints, comprising: an information generating means for generating an integration information that indicates whether images from different viewpoints have been integrated into a single image or not (Oshima, Fig. 18) and an image placement information that indicates a placement relationship of the images from

the different viewpoints inside of the single integrated image when the images from the different viewpoints are integrated into the single image, wherein the data format includes the integration information and the image placement information (Oshima, Fig. 4) and

Oshima does not explicitly disclose wherein the image placement information includes information on the placement relationship in which the viewpoint images are positioned by rotation of a predetermined angle, and a placement order information that indicates whether the images are arranged in an order of the viewpoints or in a reverse order of the viewpoints.

Swift teaches wherein the image placement information includes information on the placement relationship in which the viewpoint images are positioned by rotation of a predetermined angle (Swift, "View N, View 1, View 2", Fig. 17) and a placement order information that indicates whether the images are arranged in an order of the viewpoints or in a reverse order of the viewpoints (Swift, "reverse order", paragraph 64; Swift, Fig. 3, "contents of window displayed in pseudostereo (reverse stereo)").

Oshima and Swift are both in the same field of endeavor of electronic stereoscopic media systems. It, therefore, would have been obvious at the time of the invention to one of ordinary skill in the art to modify the Oshima reference to include image placement information on the placement relationship in which the viewpoint images are positioned by rotation of a predetermined angle, and a placement order information that indicates whether the images are arranged in an order of the viewpoints

or in a reverse order of the viewpoints as these are two basic characteristics, well-known to those of ordinary skill in the art, of stereoscopic image information defining the placement and integration of the integrated stereoscopic images under the various stereoscopic formats available and shown in Fig. 1.

Regarding claim 7, Oshima discloses an image data reproducing apparatus for reproducing a plurality of images corresponding to a plurality of viewpoints, from image data of a predetermined data format, comprising: an analyzing means for analyzing the predetermined data format, wherein the analyzing means analyzes an integration information that indicates whether images from different viewpoints have been integrated into a single image or not (Oshima, Fig. 17) and an image placement information that indicates a placement relationship of the images from the different viewpoints inside of the single integrated image, (Oshima, Fig. 4), and reproduces the plurality of images using the integration information and the image placement information (Oshima, Fig. 15).

Oshima does not explicitly disclose wherein the image placement information includes information on the placement relationship in which the viewpoint images are positioned by rotation of a predetermined angle, and a placement order information that indicates whether the images are arranged in an order of the viewpoints or in a reverse order of the viewpoints.

Swift teaches wherein the image placement information includes information on the placement relationship in which the viewpoint images are positioned by rotation of a predetermined angle (Swift, "View N, View 1, View 2", Fig. 17) and a placement order information that indicates whether the images are arranged in an order of the viewpoints or in a reverse order of the viewpoints(Swift, "reverse order", paragraph 64; Swift, Fig. 3, "contents of window displayed in pseudostereo (reverse stereo)").

Oshima and Swift are both in the same field of endeavor of electronic stereoscopic media systems. It, therefore, would have been obvious at the time of the invention to one of ordinary skill in the art to modify the Oshima reference to include image placement information on the placement relationship in which the viewpoint images are positioned by rotation of a predetermined angle, and a placement order information that indicates whether the images are arranged in an order of the viewpoints or in a reverse order of the viewpoints as these are two basic characteristics, well-known to those of ordinary skill in the art, of stereoscopic image information defining the placement and integration of the integrated stereoscopic images under the various stereoscopic formats available and shown in Fig. 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-6 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshima et al. (WO97/32437 A1), Swift et al. (US 2002/0122585 A1) and Matsuo et al. (EP 0971261 A2). Oshima EP 1693844 A2 is an equivalent, and will be relied upon and referred to herein as the translation.

Regarding claims 2 and 3, while the combination of Oshima and Swift discloses the image data generating apparatus according to claim 1, the combination of Oshima and Swift does not specifically disclose wherein the image placement information is information on the placement mode in which the viewpoint images are positioned by rotation of a predetermined angle wherein the predetermined angle is one or plural among 0 degrees, 90 degrees clockwise, 180 degrees clockwise and 270 degrees clockwise.

Matsuo teaches wherein the wherein the image placement information is information on the placement mode in which the viewpoint images are positioned by rotation of a predetermined angle, wherein the predetermined angle is one or plural among 0 degrees, 90 degrees clockwise, 180 degrees clockwise and 270 degrees clockwise (Matsuo, paragraph 55, Fig. 9).

It would have been obvious at the time of the invention to modify the image display control apparatus of Kawai with the plurality of predefined angles taught by Matsuo in order to define "a rotating direction angle setting table" as described in

paragraph 53 where the values 0 through 3 represent rotational information as described in paragraph 55. Paragraph 55 of the Matsuo reference goes on to say that as a result of having a rotating direction angle setting table 707, "the image rotating devices 703 and 704 rotate the image data using a predetermined transformation matrix equation, based on parameters provided by the obtained rotation information."

Regarding claim 4, while the combination of Oshima and Swift discloses most of the image data generating apparatus according to claim 1, wherein the image placement information is composed of a placement direction information and placement order information (Oshima, Fig. 4, 18), but the combination of Oshima and Swift does not explicitly indicate whether the images are arranged vertically or horizontally and whether the images are arranged in an order of the viewpoints or in a reverse order of the viewpoints.

Matsuo teaches wherein whether the images are arranged vertically or horizontally and whether the images are arranged in an order of the viewpoints or in a reverse order of the viewpoints is indicated in the image placement and direction information (Matsuo, Fig. 10)

It would have been obvious at the time of the invention to modify the invention of the combination of Oshima and Swift with a direction setting table with values from 0 to 3 representing direction information in order to "merge the image data provided by the

image rotating devices 703 and 704 based on the merge information taken out from the merge-related information setting table 708 (step S105)." (Matsuo, paragraph 58)

Regarding claim 5, while the combination of Oshima and Swift discloses the image data generating apparatus according to claim 1, the combination of Oshima and Swift does not explicitly teach wherein the image placement information is information on the placement mode of the images in which placements of the viewpoint images are positioned by rotation of a predetermined angle, information on the placement mode of the images in which positions of the images are inverted in a predetermined direction based on a positional relationship of the viewpoints, or information on a combined mode of the two placement modes.

Matsuo teaches wherein the image placement information is information on the placement mode of the images in which placements of the viewpoint images are positioned by rotation of a predetermined angle, information on the placement mode of the images in which positions of the images are inverted in a predetermined direction based on a positional relationship of the viewpoints, or information on a combined mode of the two placement modes (Matsuo, paragraph 40, paragraph 55 and 56, Fig. 9 and 10).

It would have been obvious at the time of the invention to modify the invention of the combination of Oshima and Swift with a table of values representing positional information in which placements of the viewpoint images are positioned by rotation of a

predetermined angle, information on the placement mode of the images in which positions of the images are inverted in a predetermined direction based on a positional relationship of the viewpoints, or information on a combined mode of the two placement modes because this allows "obtaining a single stereoscopic picture having parallax from two pictures." (Matsuo, paragraph 6)

Regarding claim 6, the combination of Oshima and Swift and Matsuo discloses the image data generating apparatus according to claim 5, wherein the predetermined angle is one or plural among 0 degrees, 90 degrees clockwise, 180 degrees clockwise and 270 degrees clockwise, and the predetermined direction is one or plural among a horizontal direction and a vertical direction (Matsuo, Fig. 9 and 10).

Regarding claim 8 and 9, while the combination of Oshima and Swift discloses the image data reproducing apparatus according to claim 7, the combination of Oshima and Swift does not disclose wherein the image placement information is information on the placement mode in which the viewpoint images are positioned by rotation of a predetermined angle, wherein the predetermined angle is one or plural among 0 degrees, 90 degrees clockwise, 180 degrees clockwise and 270 degrees clockwise.

Matsuo teaches wherein the image placement information is information on the placement mode in which the viewpoint images are positioned by rotation of a predetermined angle, wherein the predetermined angle is one or plural among 0

degrees, 90 degrees clockwise, 180 degrees clockwise and 270 degrees clockwise (Matsuo, paragraph 55; Fig. 9).

It would have been obvious at the time of the invention to modify the image display control apparatus of the combination of Oshima and Swift with the plurality of predefined angles taught by Matsuo in order to define "a rotating direction angle setting table" as described in paragraph 53 where the values 0 through 3 represent rotational information as described in paragraph 55. Paragraph 55 of the Matsuo reference goes on to say that as a result of having a rotating direction angle setting table 707, "the image rotating devices 703 and 704 rotate the image data using a predetermined transformation matrix equation, based on parameters provided by the obtained rotation information."

Regarding claim 10, while the combination of Oshima and Swift discloses the image data reproducing apparatus according to claim 7, wherein the image placement information is composed of a placement direction information and placement order information (Oshima, Fig. 4, 18), but the combination of Oshima and Swift does not explicitly indicate whether the images are arranged vertically or horizontally and whether the images are arranged in an order of the viewpoints or in a reverse order of the viewpoints.

Matsuo teaches wherein whether the images are arranged vertically or horizontally and whether the images are arranged in an order of the viewpoints or in a

reverse order of the viewpoints is indicated in the image placement and direction information (Matsuo, Fig. 10)

It would have been obvious at the time of the invention to modify the invention of the combination of Oshima and Swift with a direction setting table with values from 0 to 3 representing direction information in order to "merge the image data provided by the image rotating devices 703 and 704 based on the merge information taken out from the merge-related information setting table 708 (step S105)." (Matsuo, paragraph 58).

Regarding claim 11, while the combination of Oshima and Swift discloses the image data reproducing apparatus according to claim 7, the combination of Oshima and Swift does not explicitly teach wherein the image placement information is information on the placement mode of the images in which placements of the viewpoint images are positioned by rotation of a predetermined angle, information on the placement mode of the images in which positions of the images are inverted in a predetermined direction based on a positional relationship of the viewpoints, or information on a combined mode of the two placement modes.

Matsuo teaches wherein the image placement information is information on the placement mode of the images in which placements of the viewpoint images are positioned by rotation of a predetermined angle, information on the placement mode of the images in which positions of the images are inverted in a predetermined direction based on a positional relationship of the viewpoints, or information on a combined mode

of the two placement modes (Matsuo, paragraph 40, paragraph 55 and 56, Fig. 9 and 10).

It would have been obvious at the time of the invention to modify the invention of the combination of Oshima and Swift with a table of values representing positional information in which placements of the viewpoint images are positioned by rotation of a predetermined angle, information on the placement mode of the images in which positions of the images are inverted in a predetermined direction based on a positional relationship of the viewpoints, or information on a combined mode of the two placement modes because this allows "obtaining a single stereoscopic picture having parallax from two pictures." (Matsuo, paragraph 6)

Regarding claim 12, the combination of Oshima and Swift and Matsuo discloses the image data reproducing apparatus according to claim 7, wherein the predetermined angle is one or plural among 0 degrees, 90 degrees clockwise, 180 degrees clockwise and 270 degrees clockwise, and the predetermined direction is one or plural among a horizontal direction and a vertical direction (Matsuo, Fig. 9 and 10).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELISA M. RICE whose telephone number is (571)270-

1582. The examiner can normally be reached on 12:00-8:30p.m. EST Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on (571)272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elisa M Rice/
Examiner, Art Unit 2624

***/Vikkram Bali/
Supervisory Patent Examiner, Art Unit 2624***